

Chemistry

The real issues posed by technological innovations


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by Fokus Online

The logistics sector has had to deal with acute problems in recent years. Most of them have now been tackled thanks to technological innovations, and so the following issues are on the doorstep. "Chemical supply chain is like a boosted patient: on the better hand, but not yet cured."

Peter Devos, as general manager of [ECTA](#), the European Chemical Transport Association, puts his finger on the wound like no other: "During the corona crisis, there was little room for long-term plans. We now have to catch up." The agenda includes sustainability and digitization. "For example, people are increasingly focusing on a green fleet, with electric trucks or trucks that run on hydrogen." Sounds simple, but it's not.

"This requires major investments. In addition, the safety aspect also plays a role. Because is it responsible to drive a hydrogen truck into a chemical factory?" thinks Devos out loud. "With every innovation, a risk analysis must be carried out." Because logistics is a very connected world, one has to coordinate for major issues. "For example, agreements must be made. A Belgian company will not focus on clean transport if its Polish competitor can continue to drive without extra costs. There has to be a *level playing field*."

In terms of digitization, the chemical supply chain is also on the verge of change. ECTA has been  working for some time to convert the document standards into digital standards. "According to the

legislation, a paper consignment note must be fully digital by 2025. This presents us with the great challenge of expressing abstract and paper flows and processes in a new, uniform digital language." Once again, Devos emphasises the need for high-level cooperation between all actors. "Innovations that make the sharing of digital data more efficient, in turn, bring new issues with them, such as risks around [cybersecurity](#)."

“ There is an increasing focus on a green fleet, but that requires investments and risk analyses.


— Peter Devos, General Manager European Chemical Transport Association

Digital and sustainable collaboration

More digital and sustainable, that requires cooperation. But how do you create a level playing field at a level that crosses national borders? Legislation is one thing, although according to Jan Fransoo, professor of Operations and Logistics Management at the Tilburg School of Economics and Management, this is not entirely in line with reality: "In Europe, standards in the sector arise bottom-up, and rarely initially through regulations. This applies to digitization as well as in the field of security." As far as sustainability is concerned, the professor does see merit in legislation. "The European Green Deal is a direct government intervention and will lead to behavioural change in the chain."

Fransoo makes a comment: "Chemical companies are upstream in the chain. This means that they have a slower reaction speed than other links. Yet you notice that here too, the consumer's call for a more environmentally friendly way of working is increasingly being met. Some large chemical companies have today set sustainability targets. They do this voluntarily."

Cheaper technology

According to the professor, the playing field is also levelled by the fact that technology is becoming cheaper and cheaper. "The additional cost for electric passenger cars is decreasing year after year and will gradually disappear. The same applies to trucks. Within five years, these investments will be less substantial. Technology will overtake reality at some point." Moreover, the biggest change will take place in the production process itself, according to Fransoo. "With the transition from a chemistry based on fossil fuels to an industry based on biomaterials, fundamentally different logistics flows will arise." Innovation in production leads to innovation in the link, it sounds. "The impact of technological innovations in production is many times greater than that of innovations in transport itself." Peter Devos also focuses on the positive consequences of innovation. "New technologies will provide solution 

other problems. In this way, a better optimized flow of goods will soon be able to solve the shortage of transport capacity."



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